

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 08-249530

(43)Date of publication of application : 27.09.1996

(51)Int.Cl.

G07F 9/00

G07F 9/00

G07F 7/00

(21)Application number : 07-054226

(71)Applicant : SANYO ELECTRIC CO LTD

(22)Date of filing : 14.03.1995

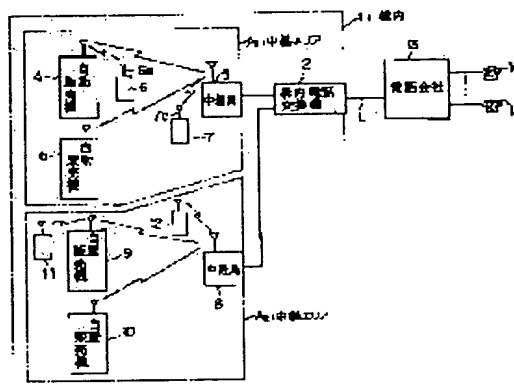
(72)Inventor : ARAI KO

(54) AUTOMATIC VENDING MACHINE SYSTEM

(57)Abstract:

PURPOSE: To provide an automatic vending machine system with which a portable telephone, car telephone or mobile telephone such as a personal handyphone system(PHS) can be utilized.

CONSTITUTION: The designation of an automatic vending machine 4 and commodity is inputted by a mobile telephone set 6 so that call originating source identification information (such as a telephone number, for example), the calling information of the designated automatic vending machine and commodity selection information can be transmitted from the mobile telephone set 6 through a communication line L to the automatic vending machine 4. At the automatic vending machine 4, the designated commodity is ejected from a commodity ejecting means to the outside based on the transmitted information, and the charging information of the ejected commodity and the call originating source identification information are transmitted to a charge collecting means. Based on the transmitted charging information and call originating source identification information, the charge collecting means collects the charge from the call originating source information (such as the owner of the mobile telephone) in a post- payment system.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] this invention relates to the vending-machine system using the mobile phone as mobile-communications terminals, such as a cellular phone, a car telephone, or personal handy phone (PHS-ersonalHandyphone System).

[0002]

[Description of the Prior Art] Conventionally, what is shown in drawing 5 is known as a vending-machine system. This vending-machine system 200 is vending-machine V1 -Vn connected with a host computer 7 by a host computer 7, the communication lines 8, such as the telephone line, and this communication line 8. It is had and constituted. each -- vending-machine V1 -Vn **** -- a controller 62, the card read station 61, the goods selection section 63, and the goods issue section 64 are formed

[0003] The buyer who owns card C identification informations (data, such as an identification number or a bank account number), such as card C amount-of-money informations, such as a prepaid card, were remembered to be, or a credit card, were remembered to be in the above-mentioned conventional vending-machine system 200 is a vending machine V1 about this card C. It inserts in the card read station 61. The card read station 61 reads the information memorized by the card. The read card information is sent to a controller 62, and is transmitted to a host computer 7 from a controller 62. Whether the identification information within a card information can use a host computer 7 by this vending-machine system 200 and a card distinguish whether it is a counterfeit card. Consequently, when the identification information within a card information can use it by this vending-machine system 200, a host computer 7 is a vending machine V1. The information on "card use is possible" is transmitted to a controller 62 through a communication line 8. Vending machine V1 When a controller 62 receives this information on "card use is possible", the status that the goods selection section 63 can be inputted is made to activity-ize it. In the case of a prepaid card, it displays on the drop which does not illustrate the balance amount of money in a card. If a buyer operates the goods selection button (not shown) of the goods selection section 63 etc. and chooses specific goods in this status, the goods selection signal will be sent to a controller 62. If a controller 62 receives a goods selection signal, the accounting information for asking a buyer for the value of the selected goods will be remitted to a host computer 7, or, in the case of a prepaid card, the value of the selected goods will be deducted from the card balance. Simultaneously, a controller 62 sends the goods issue signal which makes the selected goods discharge outside to the goods issue section 64. The goods issue section 64 receives a goods issue signal, and discharges selected goods G outside. In this way, a buyer can purchase goods G.

[0004] Although the payment of goods G is ended by the total of the card balance in the case of a prepaid card, in the case of a credit card, a host computer 7 stores the above-mentioned accounting information in storage (not shown), totals in every predetermined term (for example, one month), charges the considerable amount of money to the card issuer who has managed the above-mentioned buyer's credit card, and receives a payment in it. A card issuer pulls down the considerable amount of money from this buyer's card account.

[0005]

[Problem(s) to be Solved by the Invention] However, in the above-mentioned conventional vending-machine system, when a specific prepaid card and a specific credit card are required for goods purchase and he had forgotten the card, goods purchase was not completed but it was inconvenience. Moreover, in addition to the card for goods purchase, various kinds of cards exist and a management of a card also becomes complicated by the end of today.

[0006] On the other hand, use of the dial up line by the mobile phone machine has been recently attained by development of mobile communications. The so-called PHS aiming at use cheap with a narrow area and individual is also spreading from the mobile phone with which a mobile phone machine can also communicate in a broader-based area, or a car telephone. Moreover, a dial up line is only used for transmission of the information not only with a telephone call or a send data but value added, and the service system which adds and pays an information use tariff to a telephone rate has also appeared. Under such status, the construction of a still new vending-machine system using the dial up line is possible.

[0007] this invention aims at offering the vending-machine system using mobile communications.

[0008]

[Means for Solving the Problem] In order to solve the above-mentioned technical problem, invention according to claim 1 The transceiver means containing the antenna which transmits and receives a radio signal, a goods issue means to discharge appointed goods outside, And appointed goods are made to discharge through the above-mentioned goods issue section according to the goods specification information received through the above-mentioned transceiver section. 1 or two or more vending machines containing a control means to control to send out the accounting information equivalent to the value of the above-mentioned issue goods, and the above-mentioned sending agency identification information through the above-mentioned transceiver means, It has the mobile phone machine which can radio transmit sending agency identification information, the call information on a specification vending machine, and goods selection information, and a tariff recovery means to collect tariffs based on the above-mentioned accounting information and sending agency identification information, and is constituted.

[0009] The transceiver means containing the antenna with which invention according to claim 2 transmits and receives a radio signal, Appointed goods are made to discharge through the above-mentioned goods issue section according to a goods issue means to discharge appointed goods outside, an information storage means, and the goods specification information received through the above-mentioned transceiver section. The above-mentioned information storage means is made to memorize the accounting information equivalent to the value of the above-mentioned issue goods, and the above-mentioned sending agency identification information. And 1 or two or more vending machines containing a control means to control to read the above-mentioned accounting information and sending agency identification information from the above-mentioned information storage means, and to send out through the above-mentioned transceiver means, It has the mobile phone machine which can radio transmit sending agency identification information, the call information on a specification vending machine, and goods selection information, and a tariff recovery means to collect tariffs based on the above-mentioned accounting information and sending agency identification information, and is constituted. The transceiver means containing the antenna with which invention according to claim 3 transmits and receives a radio signal. Appointed goods are made to discharge through the above-mentioned goods issue section according to a goods issue means to discharge appointed goods outside, an information storage means, and the goods specification information received through the above-mentioned transceiver section. The above-mentioned information storage means is made to memorize the accounting information equivalent to the value of the above-mentioned issue goods, and the above-mentioned sending agency identification information. And 1 or two or more vending machines containing a control means to control to read the above-mentioned accounting information and sending agency identification information from the above-mentioned information storage means, and to send out through the above-mentioned transceiver means, The mobile phone machine which can radio transmit sending agency identification information, the call information on a specification vending

machine, and goods selection information, It is installed for every distance field which can be predetermined communicated, and it has the communication line which has 1 or two or more relay centers from which a transmission of the transmit information from the above-mentioned mobile phone machine is relayed, and a tariff recovery means to collect tariffs based on the above-mentioned accounting information and sending agency identification information, and is constituted.

[0010] Invention according to claim 4 builds a vending-machine system according to claim 2 or 3 to a communication line using a dial up line.

[0011]

[Function] According to invention according to claim 1, a mobile phone machine transmits on radio the sending agency identification information (for example, telephone number) assigned to the concerned telephone, the call information on a specification vending machine, and goods selection information by operating a mobile phone machine and performing the specification input of a vending machine and goods. Such transmit information is transmitted to the vending machine with which 1 or two or more vending machines were specified either. In a vending machine, an antenna and a transceiver means receive transmit information, and it sends to a control means. A control means sends the received goods specification information to a goods issue means, makes a goods issue means discharge appointed goods outside, and sends out the accounting information which is further equivalent to the value of issue goods, and the above-mentioned sending agency identification information through the above-mentioned transceiver means. This accounting information and the above-mentioned sending agency identification information are sent to a tariff recovery means, and tariffs are collected from sending agency identification information based on the accounting information to which the tariff recovery means was transmitted, and sending agency identification information (namely, owner of the concerned cellular phone etc.).

[0012] Thus, it is enabled to attain sale of the goods by the vending machine through a mobile phone, and to collect the selling price by the reversionary method, without using a coin and a bill.

[0013] According to invention according to claim 2, in addition to an operation of the above-mentioned claim 1, it faces sending out accounting information and sending agency identification information, and the accounting information equivalent to the value of issue goods and sending agency identification information are once accumulated for the information storage means, and if needed, to suitable timing, a control means reads accounting information and sending agency identification information from an information storage means, and sends them out through a transceiver means.

[0014] Consequently, in case a reversionary method recovers selling price, where the purchase data by sending agency identification information are totaled by the vending-machine side, it becomes ready-for-sending ability at a bill issue means.

[0015] In addition to an operation of the above-mentioned claim 2, through 1 or two or more relay centers which were installed for every distance field which can be predetermined communicated, radio sending of sending agency identification information, the call information on a specification vending machine, and the goods selection information can be carried out from a mobile phone machine, and, according to invention according to claim 3, use of the so-called PHS telephone system is attained.

[0016] According to invention according to claim 4, transmit information, such as accounting information and sending agency identification information, can be transmitted using a dial up line from the sending agency identification information from a mobile phone machine, the call information on a specification vending machine, goods selection information, and an information storage means, and the versatility of an operated-by remote control type vending-machine system can be improved.

[0017]

[Example] Next, the suitable example of this invention is explained based on a drawing.

(I) The 1st example of the vending-machine system of this invention is shown in 1st example view 1.

[0018] As shown in drawing 1, the private-telephone exchange 2 is installed within the enclosure

1 of the to some extent large-scale organization of buildings, such as the parks, an infirmary, or a building, etc. by which a facility convention is carried out. It connects with the telephone company 13 through public line L by one side, and the private-telephone exchange 2 is connected to 1 or the relay center (transponder) 3 of a plurality (drawing 1 two sets), and 8 -- on the other hand. The telephone company 13 has the total system, the tariff recovery system, or bill issue system of a selling tariff.

[0019] A relay center 3 and 8 -- are installed by one set of the unit of a predetermined Hertzian wave range domain (or predetermined area), and the relay area A1 and A2 -- are set up corresponding to this installation position. Each relay area A1 and A2 -- include the vending machines 4, 5, 9, and 10 of 1 or a plurality (drawing 1 four sets), and relay the transceiver information on each relay area A1, the vending machines 4, 5, 9, and 10 belonging to A2 --, and the mobile phone machines 6, 7, 11, and 12 to the private-telephone exchange 2. In addition, even if the signal systems of a communication line are any of a digital method and an analog method, the application of this invention is possible.

[0020] As shown in drawing 2 , in each vending machine 4 (configuration also with 5, 9, and 10) [same] A controller 18, and the transceiver section 17 and the antenna 16 which are connected to this controller 18 and perform a radio, It connects with a controller 18 with the goods selection section 19 which chooses goods [connect with a controller 18 and] to purchase with the goods selection button 21, and they are goods M1. The goods issue section 20 discharged to the exterior of a vending machine 4 and the storage section 22 which memorizes various informations are formed.

[0021] As shown in drawing 3 , the mobile phone machine 6 (configuration also with 7, 11, and 12) is equipped with 6f of the displays which display an information as input section 6a, such as a keyboard, control-section 6b which controls this whole mobile phone machine 6, memory section 6c which memorizes the inputted transmit information, and 6d of the transceiver sections and antenna 6e which transmit and receive an information, for example, terminals, such as PHS, can be used for it. [same]

[0022] Next, a series of operation is explained. When purchasing goods, according to the spacing distance with the mobile phone machines 6, 7, 11, and 12, the vending machines 4, 5, 9, and 10, or the relay centers 3 and 8 which a buyer carries, communication paths differ and informational transmission is performed in the two modes. The 1st communicate mode is the case (it is distant from the relay center) where a mobile phone machine exists near the vending machine, and the 2nd communicate mode is the case (it exists near the relay center) where a mobile phone machine separates and exists from a vending machine. In addition, priority is given to one of the modes (for example, the 1 communicate mode) when a mobile phone machine exists near [both] a vending machine and the relay center.

[0023] In the case of the 1st communicate mode, a buyer calls the telephone number of a vending machine 4 which operates and uses input section 6a of the mobile phone machine 6 first [near the vending machine 4 which wishes the purchase of goods]. As an input command signal, operation of input section 6a of the mobile phone machine 6 is sent to control-section 6b, is sent to 6d of the transceiver sections as a transmit information signal from control-section 6b, and is sent by the Hertzian wave from antenna 6e of transceiver section 6b. The sending agency identification information or the identification information that a user (the individual or company which purchases) is discriminable is included in this transmit information signal. Although the telephone number assigned to the mobile phone machine is used as this identification information in the case of this example, the number which can discriminate an individual, a sign, a bank account number, etc. can be used as other modes.

[0024] It gets over in the transceiver section 17 through the antenna 16 of a vending machine 4, and the transmit information signal sent from the mobile phone machine 6 is sent to a controller 18. As for a controller 18, the telephone number which read the telephone number of the mobile phone machine 7 of a sending agency, and was read judges whether sale corresponds to the telephone number permitted and registered in the concerned vending machine 4 from the information signal which received. Consequently, when the telephone number is judged to be a

thing applicable to the number which is having sale permitted, it means that the circuit was connected, and the concerned mobile phone machine 6 and the concerned vending machine 4 use the mobile phone machine 6 as a cordless handset, use a vending machine 4 as a main phone, and both communication of them is attained.

[0025] In a vending machine 4, a controller 18 transmits a goods selectable signal to the goods selection section 19. If a goods selectable signal is received, the goods selection section 19 will display "please choose goods" etc. on the drop not to illustrate, or will carry out turning on the goods selection button 21 etc., and will be set as the mode in which the goods selection operation input from the exterior is received.

[0026] If a buyer operates the goods selection button 20 of the goods selection section 21 in this "goods selection mode" and chooses specific goods as it after a setup, the goods selection signal will be sent to a controller 18. If a goods selection signal is received, a controller 18 will once be stored in the storage section 22 with the telephone number of the mobile phone machine 6 which had the accounting information for asking a buyer for the value of the selected goods used, and will be outputted to every predetermined terms (for example, one day, an one week unit, etc.) at the telephone company 13 in the path of antenna 16** relay center 3** private-telephone exchange 2** public line L.

[0027] Moreover, a controller 18 sends the goods issue signal which makes the selected goods discharge outside to the goods issue section 20. The goods issue section 20 is the goods M1 which receive a goods issue signal and were chosen. It discharges outside. They are goods M1 with a mobile phone, without a buyer using a coin and a bill in this way. It can purchase.

[0028] The telephone company 13 has a tariff recovery means by the computer system, stores in storage (not shown) the telephone number of the mobile phone machine used with accounting information, totals in every serial or predetermined term (for example, one month), and collects tariffs by deducing in advance from the above-mentioned buyer's salary, or publishing a bill individually, and receiving a payment or pulling down the considerable amount of money from a bank account etc.

[0029] It can call the vending machine 1 which it is going to purchase from the location distant distantly [vending machine], heating or cooking is required, and the 2nd communicate mode is suitable when performing the reservation purchase of the goods which need predetermined time by purchase.

[0030] From the distant place of a vending machine 4 which wishes the purchase of goods, a buyer operates input section 7a of the mobile phone machine 7, and calls the telephone number of the vending machine 5 to use. Operation of input section 7a of the mobile phone machine 7 is sent by the Hertzian wave from antenna 7c as an input command signal.

[0031] The transmit information signal sent from the mobile phone machine 7 is transmitted to a vending machine 5 through a relay center 3.

[0032] In a vending machine 5, when authentication of the read of the telephone number of the mobile phone machine 7 of a sending agency, selling permission, and the registration telephone number is performed and the telephone number corresponds to a selling permission number like the 1st above-mentioned communicate mode, the concerned mobile phone machine 7 and the concerned vending machine 5 are connected, the mobile phone machine 7 is used as a cordless handset, a vending machine 5 is used as a main phone, and both communication is enabled through a relay center 3.

[0033] Furthermore, in a vending machine 5, the goods selection section 19 displays "please choose goods" etc. on a drop etc., or carries out turning on the goods selection button 21 etc., and is set as the mode in which the goods selection operation input from the exterior is received.

[0034] If after a setup and a buyer operate input section 6a of the mobile phone machine 7 in this "goods selection mode". and specific goods are chosen or existence of the need for cooking etc. is specified, the goods selection signal or the specification signal of cooking will be transmitted to a vending machine 5 via a relay center 3.

[0035] In a vending machine 5, if a goods selection signal is received, a controller 18 will once be stored in the storage section 22 with the telephone number of the mobile phone machine 7 which

had the accounting information asking a buyer for the value of the selected goods used, and will be outputted to every predetermined terms (for example, one day, an one week unit, etc.) at the telephone company 13 in the path of antenna 16** relay center 3** private-telephone exchange 2** public line L.

[0036] Moreover, a controller 18 sends the goods issue signal which makes the selected goods discharge outside to the goods issue section 20. The goods issue section 20 is the goods M1 which receive a goods issue signal and were chosen. It discharges outside. In this way, buyers are goods M1. It can purchase. Although mentioned later in detail, sale by subscription becomes possible by suspending the issue to this exterior temporarily.

[0037] The telephone company 13 stores in storage (not shown) the telephone number of the mobile phone machine used with accounting information using a tariff recovery means, totals in every serial or predetermined term (for example, one month), and collects tariffs by deducing in advance from the above-mentioned buyer's salary, or publishing a bill individually, and receiving a payment or pulling down the considerable amount of money from a bank account etc.

(II) The 2nd example, next the 2nd example of this invention are explained.

[0038] The 2nd example of this invention is shown in drawing 4. This 2nd example applies this invention to mobile phone systems, such as not the mobile phone system of a method that is connected by the parentage like PHS and built in a comparatively narrow area but a wide area type cellular phone, and a car telephone. Therefore, in this example, an information is not dealt with in the unit of the relay areas A1 and A2 like the 1st example, but an information communicates using the relay system of the wide area installed by the telephone company.

[0039] As shown in drawing 4, this vending-machine system is built including mobile communication system with the vending machines 4, 5, and 9 and 10 -- which have been arranged in the necessary position.

[0040] Mobile communication system consists of the mobile phone machines 25, such as a portable telephone or a car telephone machine, a communication line containing a wireless-telephone circuit, a satellite communication circuit, etc., and a telephone switchboard of the telephone company.

[0041] The mobile phone machine 25 has the same configuration as the mobile phone machine 6 of the 1st example, and radio ready-for-sending ability constitutes sending agency identification information (the telephone number of self, bank account number, etc.), the call information (telephone number) on a specification vending machine, and goods selection information by keyboard grabbing.

[0042] Each vending machines 4, 5, 9, and 10 -- The configuration is the same as that of the 1st example, and a detailed explanation is omitted to the same element using the same sign.

[0043] Next, a series of operation of the vending-machine system of this example is explained.

[0044] When performing the reservation purchase of goods (for example, food offered after carrying out heating cooking), a buyer operates the mobile phone machine 25 in the position first distant from the vending machine (for example, 4) which wishes the reservation purchase of goods, and if the telephone number of a vending machine 4 which wishes reservation purchase is inputted, the transmit information beam 23 will be transmitted. Identification informations, such as the telephone number which can discriminate a user, are included in this transmit information signal.

[0045] It is received by the telephone company 13 and the transmit information beam 23 from the mobile phone machine 25 is transmitted to a vending machine 4 by Hertzian wave 24 through a telephone switchboard. In checking whether it corresponds to the telephone number by which the telephone number which read the telephone number of the mobile phone machine 25 which performed sending, and was read is registered into the storage which goods sale is permitted in the concerned vending machine 4, and is not illustrated from the information signal from the transmitted mobile phone machine 25 in the vending machine 4 and suiting, the telephone company 13 is answered and it sends a goods selectable signal (or goods selection section activity-ized signal) to the mobile phone machine 25. And a buyer operates the ten key of the mobile phone machine 25 etc., and if the code of the purport which is "reservation purchase", and

the goods of known special reservation beforehand etc. is inputted, the goods reservation signal which makes them the content will be again sent to a vending machine 4 through a communication line. In a vending machine 4, a goods reservation signal is sent to the controller 18 (refer to the drawing 2) in a vending machine 4. A controller 18 once stores the accounting information for asking a buyer for the value of the reserved goods in the storage section 22 in a vending machine 4 with the telephone number of the mobile phone machine 25, and outputs it to every predetermined term (for example, one day or one week) at the telephone company 13. Simultaneously, a controller 18 sends a goods reservation signal to the goods processing issue section 20.

[0046] The goods processing issue section 20 receives a goods reservation signal, chooses and takes out the reserved unsettled goods from the goods receipt section (not shown) in the goods processing issue section 20, and sends them to the goods processing section (not shown) in the goods processing issue section 20. In the goods processing section, heating etc. is performed to unsettled goods and cooking etc. is processed. The goods which processing of cooking etc. completed are suspended for one of two or more processing goods hold sections (not shown) in the goods processing issue section 20 by the conveyance means (not shown). The goods fetch door not to illustrate is prepared in this processing goods hold section, and it is locked unless the predetermined signal which can be goods discharged is outputted.

[0047] the vending machine 4 which the buyer who received the completion display of goods processing specified -- going out -- the input key of the goods selection section etc. -- a subscriber -- it makes it recognize that it is him and the goods fetch door of the processing goods hold section is opened wide, and a buyer can reserve goods and can purchase the goods which passed through processing of cooking etc. In addition, since recovery of a tariff etc. is the same as that of the 1st above-mentioned example, an explanation is omitted.

[0048]

[Effect of the Invention] According to the claim 1 or 4, as explained above, since a mobile phone machine is used instead of, a credit card etc. needs to use neither money nor a bill, and is released from complicatedness, such as a setup of a card and a management, and can increase the convenience of the user of a vending machine much more. Moreover, since the public telephone system which has a mobile phone machine can be used as it is, it is not necessary to carry out the construction wiring of the communication line special to each vending machine, and change of a system and the new construction are easy. Furthermore, there is also an advantage that payment of reversionary methods, such as salary deduction-in-advance processing from a vending-machine user, becomes easy, using the private-telephone exchanges, such as the large-scale works and a large-scale infirmity, by utilizing the number calculation function of vending-machine availabilities for every individual.

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CLAIMS

[Claim(s)]

[Claim 1] A transceiver means to transmit and receive a radio signal, a goods issue means to discharge appointed goods outside, And appointed goods are made to discharge through the above-mentioned goods issue section according to the goods specification information received through the above-mentioned transceiver section. 1 or two or more vending machines containing a control means to control to send out the accounting information equivalent to the value of the above-mentioned issue goods, and the above-mentioned sending agency identification information through the above-mentioned transceiver means, The mobile phone machine which can radio transmit sending agency identification information, the call information on a specification vending machine, and goods selection information, and a tariff recovery means to collect tariffs based on the above-mentioned accounting information and sending agency identification information, Vending-machine system characterized by having.

[Claim 2] A transceiver means to transmit and receive a radio signal, a goods issue means to discharge appointed goods outside, Appointed goods are made to discharge through the above-mentioned goods issue section according to an information storage means and the goods specification information received through the above-mentioned transceiver section. The above-mentioned information storage means is made to memorize the accounting information equivalent to the value of the above-mentioned issue goods, and the above-mentioned sending agency identification information. And 1 or two or more vending machines containing a control means to control to read the above-mentioned accounting information and sending agency identification information from the above-mentioned information storage means, and to send out through the above-mentioned transceiver means, The mobile phone machine which can radio transmit sending agency identification information, the call information on a specification vending machine, and goods selection information, and a tariff recovery means to collect tariffs based on the above-mentioned accounting information and sending agency identification information, Vending-machine system characterized by having [a claim 3] A transceiver means to transmit and receive a radio signal, a goods issue means to discharge appointed goods outside, Appointed goods are made to discharge through the above-mentioned goods issue section according to an information storage means and the goods specification information received through the above-mentioned transceiver section. The above-mentioned information storage means is made to memorize the accounting information equivalent to the value of the above-mentioned issue goods, and the above-mentioned sending agency identification information. And 1 or two or more vending machines containing a control means to control to read the above-mentioned accounting information and sending agency identification information from the above-mentioned information storage means, and to send out through the above-mentioned transceiver means. The mobile phone machine which can radio transmit sending agency identification information, the call information on a specification vending machine, and goods selection information, The communication line which has 1 or two or more relay centers from which it is installed for every distance field which can be predetermined communicated, and a transmission of the transmit information from the above-mentioned mobile phone machine is relayed, and a tariff recovery means to collect tariffs based on the above-mentioned accounting information and sending agency identification information, Vending-machine system characterized by having.

[Claim 4] It is the vending-machine system characterized by a communication line being a dial up line in a vending-machine system according to claim 2 or 3.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the block diagram showing the whole vending-machine system configuration which is the 1st example of this invention.

[Drawing 2] It is the block diagram showing the example of a configuration of the vending machine of this invention.

[Drawing 3] It is the block diagram showing the example of a configuration of the mobile phone machine of this invention.

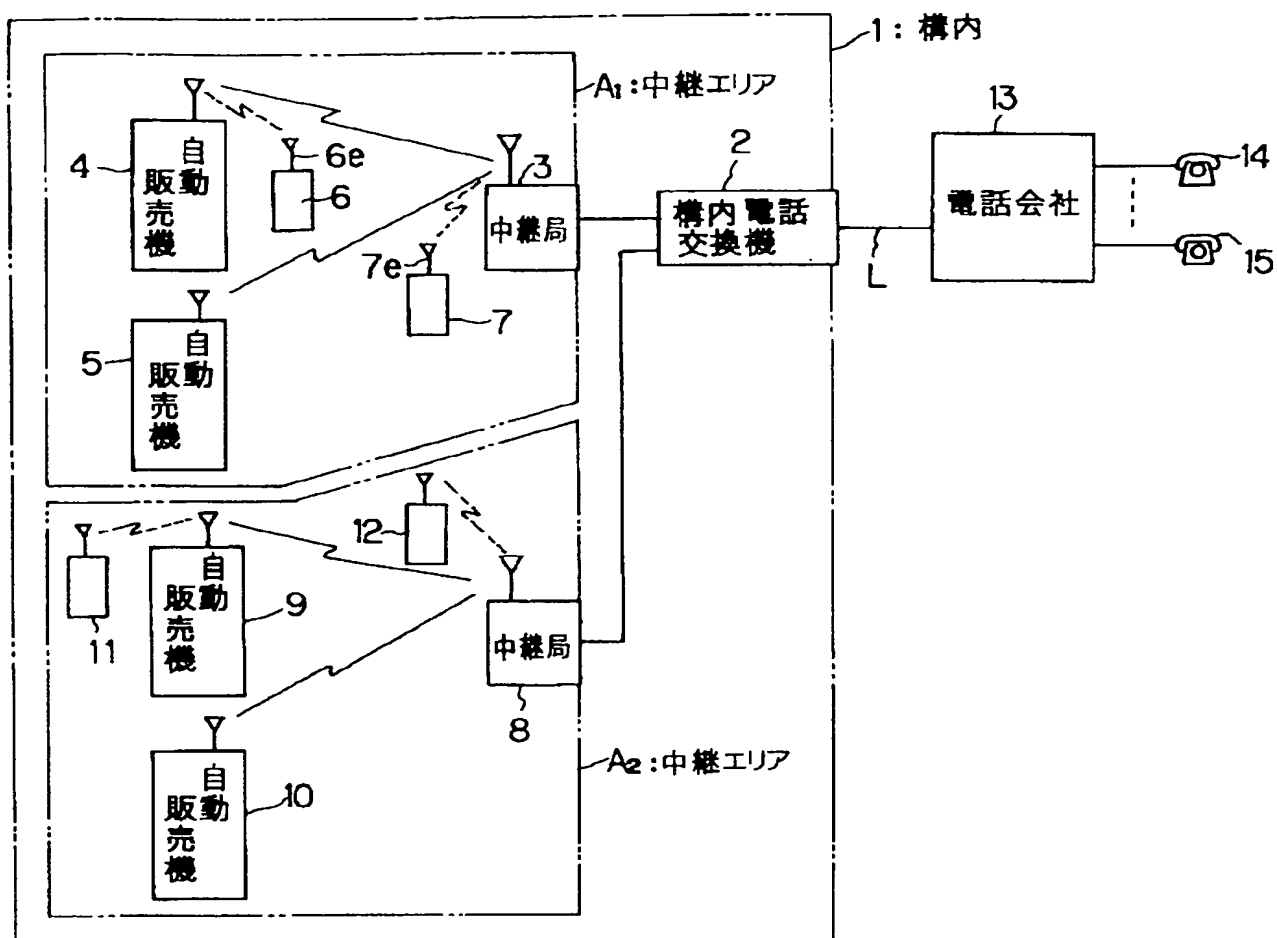
[Drawing 4] It is the block diagram showing the schema configuration of the vending-machine system which is the 2nd example of this invention.

[Drawing 5] It is the block diagram showing the conventional vending-machine structure of a system.

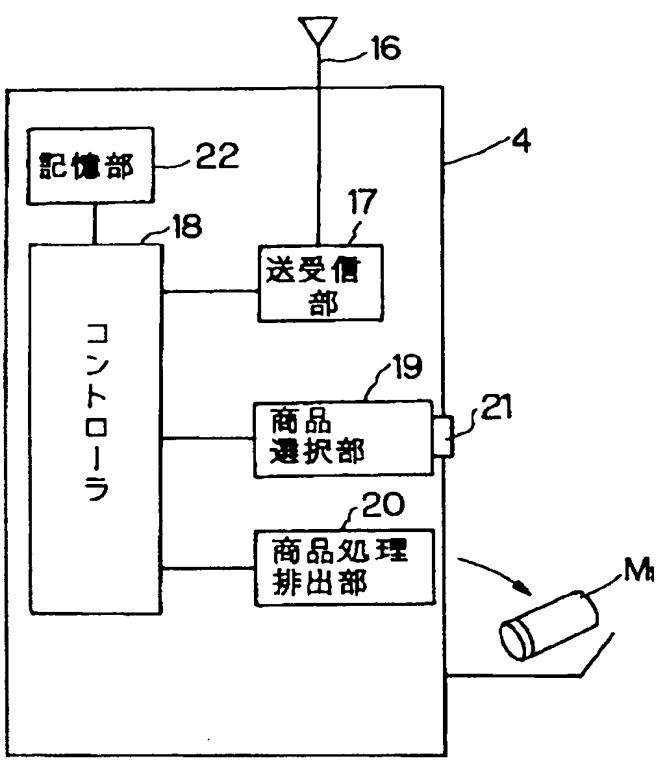
[Description of Notations]

- 1 Premises
- 2 Private-Telephone Exchange
- 3 Relay Center
- 4 Vending Machine
- 5 Vending Machine
- 6 Mobile Phone Machine
- 7 Mobile Phone Machine
- 8 Relay Center
- 9 Vending Machine
- 10 Vending Machine
- 11 Mobile Phone Machine
- 12 Mobile Phone Machine
- 13 Telephone Company
- 14 Fixed Line-Wire Telephone
- 15 Fixed Line-Wire Telephone
- 16 Antenna
- 17 Transceiver Section
- 18 Controller
- 19 Goods Selection Section
- 20 Goods Processing Issue Section
- 21 Goods Selecting Switch
- 22 Storage Section
- 23 Hertzian Wave
- 24 Hertzian Wave
- 25 Mobile Phone Machine
- M1 Goods

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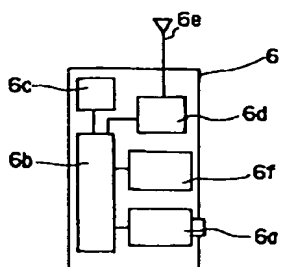


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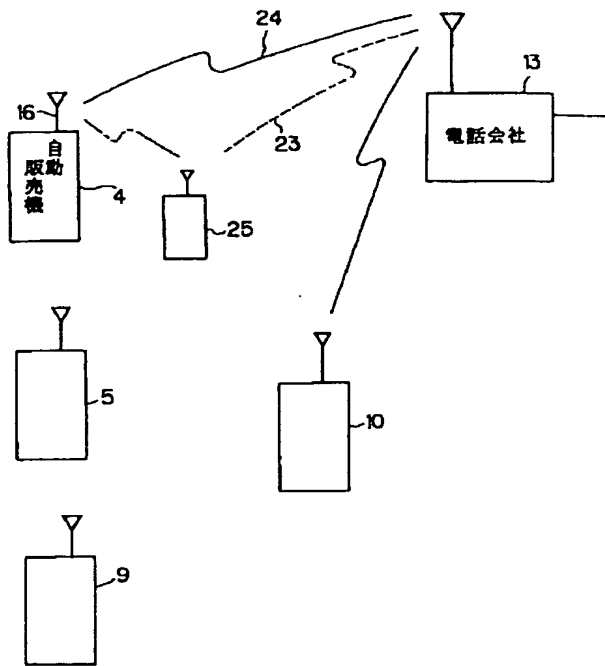
[Translation done.]

Drawing selection

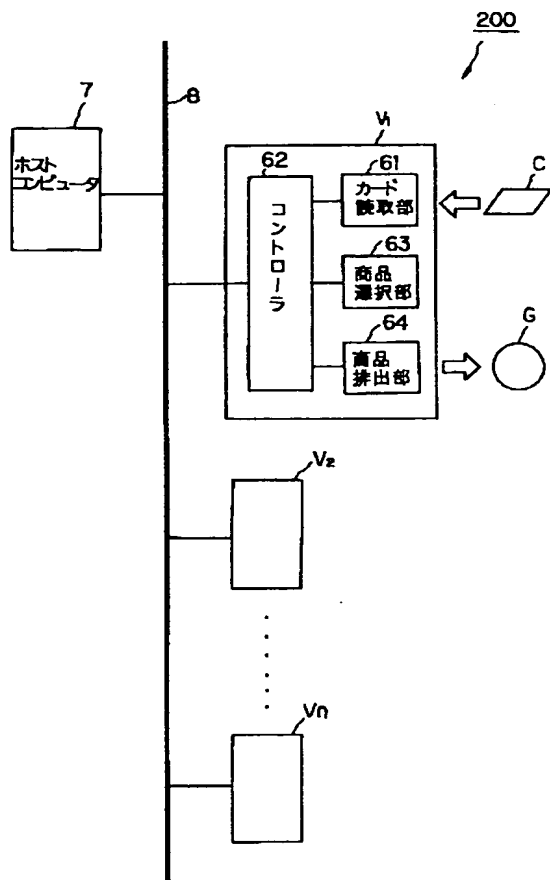


[Translation done.]

Drawing selection **Drawing 4**



[Translation done.]

Drawing selection Drawing 5

[Translation done.]

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